UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,829	07/20/2006	Joris Franckx	TYR-P0010	8912

27268 7590 11/09/2009

BAKER & DANIELS LLP
300 NORTH MERIDIAN STREET
SUITE 2700
INDIANAPOLIS, IN 46204

EXAMINER	
ANDERSON, GUY G	

ART UNIT	PAPER NUMBER
2883	

NOTIFICATION DATE	DELIVERY MODE
11/09/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

inteas@bakerd.com
cynthia.payson@bakerdaniels.com

Office Action Summary	Application No.	Applicant(s)	
	10/586,829	FRANCKX ET AL.	
	Examiner	Art Unit	
	Guy G. Anderson	2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 September 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *21-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *21-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 July 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7/6/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.1 A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/28/2009 has been entered.

Response to Arguments

2.1 Applicant's arguments with respect to claims 21-37 have been considered but are moot in view of the new ground(s) of rejection.

Response to Amendment

Drawings

3.1 The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the means for how "the optical component is held along one side only" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

3.2 Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be

notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4.1 The following is a quotation of the first paragraph of 35 U.S.C. 112:
The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4.2 Claims 21-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The limitation "wherein the optical component is held along one side only and is movable within the enclosure" is not enabled by the disclosure such that a PHOSITA would be able to practice the invention without performing undue experimentation.

4.3 Applicants specification at page 2, lines 5-10, state the following: "As the optical component is held in position relative to the enclosure at only one side of the component, the component is effectively free to move within the enclosure in the event that environmental conditions such as variations in temperature, cause the expansion or contraction of the optical fibres and/or other packaging elements."

4.4 Applicants specification at page 4, lines 19-22, state "This provides an optical device in which the optical component or components are held in a 'free floating' arrangement within the cavity such that, under variations in environmental conditions, such as extreme temperature variations where expansion/contraction of the fibres and/or other packaging elements may occur, stress through the optical fibres and consequential optical loss is avoided."

4.5 Examiner maintains that applicant's disclosure is ambiguous and vague in that the means for "holding an optical component along one side" such that the device is also "free floating" are not described in sufficient detail to allow a PHOSITA to recreate applicants' invention without performing undue experimentation. Examiner is not able to determine from either the claims or the specification precisely how one would "hold" an optical component in place along one wall while still allowing it to be "free floating."

4.6 Therefore, claims 21-34 are not enabled by the specification.

Claim Rejections - 35 USC § 112

5.1 The following is a quotation of the second paragraph of 35 U.S.C. 112:
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5.2 Claim 21-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitation "wherein the optical component is held along one side only and is movable within the enclosure" is indefinite because it does not claim the means for holding an optical component such that it can be held on one side and be movable at the same time.

5.3 Applicants specification at page 2, lines 5-10, state the following: "As the optical component is held in position relative to the enclosure at only one side of the component, the component is effectively free to move within the enclosure in the event that environmental conditions such as variations in temperature, cause the expansion or contraction of the optical fibres and/or other packaging elements."

5.4 Applicants specification at page 4, lines 19-22, state "This provides an optical device in which the optical component or components are held in a 'free floating' arrangement within the cavity such that, under variations in environmental conditions, such as extreme temperature variations where expansion/contraction of the fibres and/or other packaging elements may occur, stress through the optical fibres and consequential optical loss is avoided."

5.5 Examiner maintains that applicant's disclosure is ambiguous, vague and indefinite in that the means for "holding an optical component along one side" such that the device is also "free floating" are not described in sufficient detail to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Examiner is not able to determine from either the claims or the specification precisely how one would "hold" an optical component in place along one wall while still allowing it to be "free floating."

5.6 Therefore, the claims are indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Double Patenting

6.1 The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

6.2 A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an

invention made as a result of activities undertaken within the scope of a joint research agreement.

6.3 Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6.4 Claims 34-37 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6968113. Although the conflicting claims are not identical, they are not patentably distinct from each other because the specification and Fig. 1, 5 in US-6968113 indicates that optical components can be enclosed within the cavity.

Claim Rejections - 35 USC § 103

7.1 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7.2 **Claims 21-31 are rejected under 35 U.S.C. 103(a)** as being unpatentable over US-6374014 to Jablonski in view of EITHER US-6968113 to Leeman OR US-7215865 to Bellekens.

Regarding claim 21, Jablonski specifically discloses:

21a) An optical device comprising an enclosure having a wall member defining a cavity and a sealable fiber entry portion, an optical component located within the cavity and at least two optical fibers connected to the optical component, wherein the optical component is held along one side only and is movable within the enclosure in response to the thermal expansion or contraction of the optical fibers.

[Abstract, Fig. 1-11, Col. 3, lines 30-67, Col. 4, lines 1-67, especially lines 44-49.]

Jablonski discloses a fiber grating package wherein the optical component (grating) is allowed to bend or rotate in response to relative motion between the capillaries holding the optical fibers and the grating fibers segment due to thermal variations, but does not specifically disclose:

21b) and extending, substantially adjacent one another, through the entry portion.

Both Leeman or Bellekens disclose optical fibers enter/exiting a sealable enclosure to connect with optical components within the enclosure wherein the fibers are substantially adjacent and parallel to each other as a means of environmentally sealing optical fibers and components. [Leeman at Abstract, Fig. 1-5, Col. 4, lines 4-28 and Bellekens at Abstract, Fig. 1-2, #12, wherein the fibers are substantially adjacent, Fig. 3-5, Col. 6, lines 55-67.]

Since Leeman, Bellekens and Jablonski are from the same field of endeavor, the structures and teachings of Leeman and Bellekens would have been known to be in the pertinent art of Jablonski.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings and structures of Leeman or Bellekens with Jablonski as a means of environmentally sealing optical fibers and components.

Regarding claims 22-31, the combination of Jablonski and either of Leeman or Bellekens disclose all of the limitations of the base claims upon which claims 22-31 depend.

Jablonski specifically discloses:

> 22. An optical device according to Claim 21, wherein the optical fibers provide an incoming and outgoing fiber for the optical component. [Abstract, Fig. 1-11, Col. 3, lines 30-67, Col. 4, lines 1-67, especially lines 44-49.]
>
> 26. An optical device according to Claim 21, further comprising temperature control means. [Abstract, Fig. 1-11, Col. 3, lines 30-67, Col.

4, lines 1-67, especially lines 44-49, more especially Col. 5-6, lines 55-67 and 1-67 respectively]

30. An optical device according to Claim 21, wherein the enclosure comprises an insulating layer. [Fig. 2-3, #32, 34, Col. 4, lines 20-25]

Jablonski does not specifically disclose:

23. An optical device according to Claim 21, wherein the fiber entry portion is arranged to receive the at least two fibers substantially side-by-side as they extend through the entry portion.

24. An optical device according to Claim 23, wherein the optical fibers are arranged substantially parallel to one another as they extend through the entry portion.

25. An optical device according to Claim 21, wherein at least a portion of the enclosure is flexible.

27. An optical device according to Claim 21, wherein the enclosure comprises a laminate.

28. An optical device according to Claim 27, wherein the laminate comprises a moisture resistant layer.

29. An optical device according to Claim 28, wherein the moisture resistant layer comprises aluminum.

31. An optical device according to Claim 21, wherein the optical device comprises a plurality of optical components located within the cavity, and at least two optical fibers connected to each optical component and extending, substantially adjacent one another, through the entry portion.

Leeman and Bellekens disclose all of these limitations except that Bellekens does not disclose an aluminum moisture resistant layer. Leeman discloses an aluminum moisture resistant layer laminate at Claim 5.

[Leeman at Abstract, Fig. 1-5, Col. 4, lines 4-28 and Bellekens at Abstract, Fig. 1-2, #12, wherein the fibers are substantially adjacent, Fig. 3-5, Col. 6, lines 55-67. Particularly for claim 31, Leeman discloses that optical components or an entire optical circuit can be enclosed at Col. 4, lines 10-11]

7.3 **Claim 32 is rejected under 35 U.S.C. 103(a)** as being unpatentable over US-6374014 to Jablonski in view of US-6968113 to Leeman.

Regarding claim 32, Jablonski does not specifically disclose:

> 32. An optical device according to Claim 31, wherein the wall member defines a plurality of fiber entry portions, such that each optical component is associated with a separate fiber entry portion through which the optical fibers to which each individual optical component is connected extend through a separate fiber entry portion to the optical fibers connected to other optical components.

Leeman discloses a wall member defining multiple fiber entry portions that can be associated with individual optical components. [Leeman at Abstract, Fig. 1-5, Col. 4, lines 4-28. Also see Fig. 2b, 3-5. Particularly for claim 32, Leeman discloses that optical components or an entire optical circuit can be enclosed at Col. 4, lines 10-11 which would necessitate separate fiber connections to each component.]

7.4 **Claim 33-34 are rejected under 35 U.S.C. 103(a)** as being unpatentable over US-6374014 to Jablonski in view of US-6968113 to Leeman in view of US-6850461 to Maas.

Regarding claim 33, the combination of Jablonski and either of Leeman or Bellekens disclose all of the limitations of the base claims upon which claim 33 depend.

Jablonski does not specifically disclose:

> 33. An optical device according to Claim 21, wherein the enclosure is of a size and shape for fitting into an optical fiber organizer tray.

However, a change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237

Regarding claim 34, the combination of Jablonski and either of Leeman or Bellekens disclose all of the limitations of the base claims upon which claim 34 depend.

Jablonski and Leeman both disclose:

34) a an optical device comprising an enclosure having a wall member defining a cavity and a sealable fiber entry portion; an optical component located within the cavity and at least two optical fibers connected to the optical component. [Leeman at Abstract, Fig. 1-5, Col. 4, lines 4-28. Also see Fig. 2b, 3-5 and Jablonski at Abstract, Fig. 1-11, Col. 3, lines 30-67, Col. 4, lines 1-67, especially lines 44-49.]

Jablonski does not specifically disclose:

34b) A fiber optic organizer tray assembly, comprising: an optical fiber organizer tray; and said enclosure being profiled for fitting into said optical fiber organizer tray.

34c) wherein the fibers are extending, substantially adjacent one another, through the entry portion.

Maas discloses a fiber optic seismic array telemetry system comprising a fiber storage tray that also stores optical components such as isolators and amplifiers. [Fig. 9, Col. 6-7, lines 66-67 and 1-7 respectively.]

Since Maas, Jablonski and Leeman are from the same field of endeavor, it would have been obvious for one of ordinary skill in the art at the time of the invention to be motivated by the teachings of Maas in regards to placing components on a fiber storage tray and to combine those teachings with a module such as that disclosed in Jablonski or Leeman in order to store optical modules and organize fiber simultaneously in one unit.

Leeman discloses fibers substantially adjacent and parallel to each other at the entry/exit portion of the enclosure. [Leeman at Abstract, Fig. 1-5, Col. 4, lines 4-28. Also see Fig. 2b, 3-5]

7.5 **Claim 35-37 is rejected under 35 U.S.C. 103(a)** as being unpatentable over EITHER US-6968113 to Leeman OR US-7215865 to Bellekens in view of US-6374014 to Jablonski.

Regarding claim 35-37, both Leeman and Bellekens specifically discloses:

35a) A method of sealingly enclosing an optical component, the method comprising the steps of: providing an enclosure having a wall member

defining a cavity and a sealable fiber entry portion; arranging an optical component connected to at least two optical fibers within the cavity such that the two optical fibers extend, substantially adjacent one another, through the entry portion; and sealing the fiber entry portion so as to sealably retain the optical component within the cavity. [Leeman at Abstract, Fig. 1-5, Col. 4, lines 4-28 and Bellekens at Abstract, Fig. 1-2, #12, wherein the fibers are substantially adjacent, Fig. 3-5, Col. 6, lines 55-67.]

36. A method according to Claim 35, further comprising the step of providing a polymer strip adjacent the optical fibers at the entry portion prior to sealing the entry portion. [Leeman at Abstract, Fig. 1-5, Col. 4, lines 4-28 and Bellekens at Abstract, Fig. 1-2, #12, wherein the fibers are substantially adjacent, Fig. 3-5, Col. 6, lines 55-67.]

37. A method according to Claim 35, wherein the fiber entry portion is sealed using heat and/or pressure. [Leeman at Abstract, Fig. 1-5, Col. 4, lines 4-28 and Bellekens at Abstract, Fig. 1-2, #12, wherein the fibers are substantially adjacent, Fig. 3-5, Col. 6, lines 55-67.]

Leeman and Bellekens do not specifically disclose:

35b) wherein the optical component is movable within the enclosure in response to the thermal expansion or contraction of the optical fibers.

Jablonski discloses a fiber grating package wherein the optical component (grating) is allowed to bend or rotate in response to relative motion between the capillaries holding the optical fibers and the grating fibers segment due to thermal variations. [Abstract, Fig. 1-11, Col. 3, lines 30-67, Col. 4, lines 1-67, especially lines 44-49.]

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guy G. Anderson whose telephone number is 571.272.8045. The examiner can normally be reached on Tuesday-Saturday 1400-2200.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on 571.272.2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Guy G Anderson/
Patent Examiner, Art Unit 2883

/Frank G Font/
Supervisory Patent Examiner, Art Unit 2883

November 1, 2009
FGF/gga